

Your drinking water could be saltier than you think (even if you live in a capital)

December 12 2018, by Ian Wright, Jason Reynolds And Michelle Ryan



Your salt intake from water can vary depending on where you live. Credit: Bryan Carlson/Unsplash, [CC BY-SA](#)

As the drought drags on, small communities in eastern Australia are turning to [emergency water supplies](#). Often, this means bore water,

which has prompted health fears over its high salt content.

As alarming as this is, drinking water right around Australia can have surprisingly high levels of [salt](#). All capital cities have water salinity levels that are within the [Australian Drinking Water Guidelines](#) of 500 milligrams per litre (mg/L) – however the guidelines do not regard salinity as a health consideration, but rather as an "aesthetic" guideline, based on taste.

But Australians consume [too much salt](#), and many need to reduce salt in their diet, so the [sodium](#) component of salt has key health implications. For people following low-sodium diets for health reasons, the salt in their drinking water may be important. It is generally recommended that people on low-sodium diets drink water with less than [20mg of sodium per litre](#), but Brisbane, Adelaide and most of Perth have saltier water than this.

What salinity means

Water salinity is commonly reported as "total dissolved solids," which includes all organic and inorganic substances. "Salts" are soluble compounds of sodium, calcium, potassium, magnesium, chloride, sulfate and bicarbonate. Salts enter our waters from everywhere: the ground, the ocean, the air and living creatures.

We investigated drinking water in Australian capital cities, and some regional locations to compare salt content. When data was not publicly available for capitals, we approached water authorities for data on water salinity.

We found four major groupings for the capital cities:

1. The highest salinity water was in some [Perth](#) districts

2. The second and third highest were in [Adelaide](#) and [Brisbane](#)
3. Sydney and some supply districts within Perth (such as Tamworth Hill) have the joint second lowest salinity.
4. [Melbourne](#), [Hobart](#), [Darwin](#) and [Canberra](#) all share the lowest salinity.

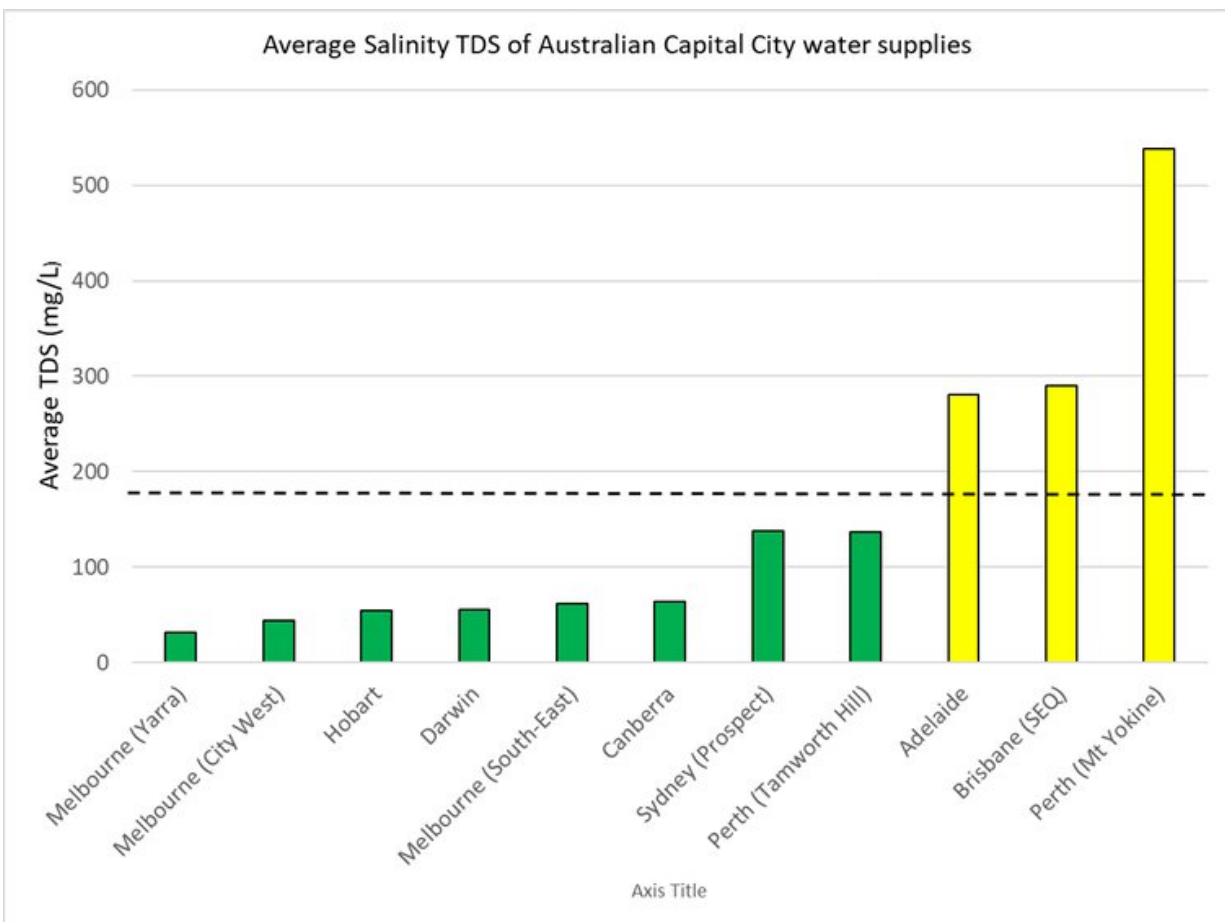
Water can start tasting noticeably salty at [180 mg/L](#). The figure below shows which districts have less than or more than 180 mg/L.

Health implications

Generally, we all love salt in our food. But one element of salt has potentially serious consequences for many Australians: sodium. It is recommended we consume less than 2,300mg per day. People with high blood pressure should consume less than 1,600mg per day, but the average Australian consumes [twice that](#).

High levels of sodium in the diet are [associated](#) with elevated blood pressure (hypertension), for which a sodium-reduced diet is sometimes recommended. Health care professionals may also recommend low sodium diets for patients with kidney disease and cardiovascular disease.

If you're following a low sodium diet, you may not have considered water as a potential source. It is generally recommended that people on low sodium diets drink water with [less than 20 mg/L of sodium](#).



Average salinity (TDS) concentrations for Capital Cities. At more than 180 mg/L drinking water can start to taste salty (shaded yellow) and is shaded green for

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